EMD Hazard Risk Assessment
Executive Summary – January 2004

This summary provides a general assessment of the hazards that are believed to present the greatest risk at this time and for the next few months. It is intended to provide emergency managers, planners, officials, and the public advance notice of potential hazards enable them to initiate appropriate mitigation and preparation actions. Local consultations are always advised.

Severe Storms:

NOAA's Pacific Marine Environmental Lab classifies the current El Nino / Southern Oscillation pattern as "Neutral." Historically, neutral patterns result in weather conditions that are less predictable. In Washington, severe winter storms most frequently occur during December and early January. The counties of Western Washington are normally at greatest risk. These storms regularly cause major power outages and concerns for adequate heating, light, and personal property damages. An attached graphic indicates areas of the greatest numbers of Presidential Declarations due to storms since 1956. The map reflects the natural phenomenon created by the weather shadow of the Olympic Mountains and turbulence in the Seattle Convergence Zone.

Avalanches and Landslides:

Avalanches and landslides present very localized risks to winter sports / back country activities and transportation corridors. Short–term, even daily changes in local temperature and precipitation levels can rapidly create dangerous avalanche conditions. Additionally, for this winter, the NOAA / Climate Prediction Center expects 33-40% increased precipitation in the NW over the 1971-2000 norm. This can result in a buildup of trapped ground water that can be a major factor in the elevated risk of landslides. For geographically specific risk updates, consult local sources; and for additional background information, see the Northwest Weather and Avalanche Center at: http://www.nwac.noaa.gov/nw04000.htm and http://www.nwac.noaa.gov/

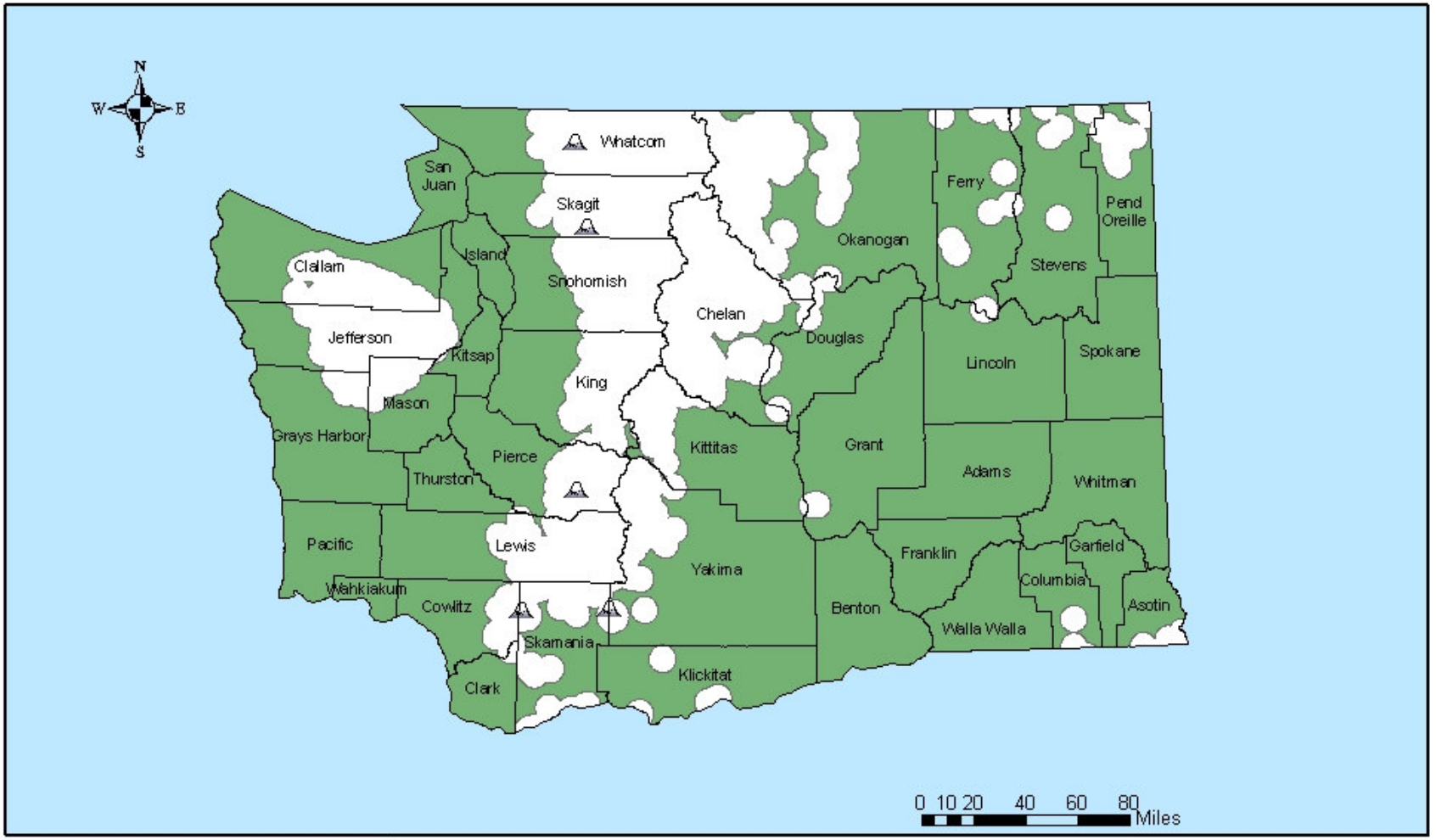
Terrorism:

According to Governor Locke on December 21st: "I received advance notice early this morning of the Department of Homeland Security's adjustment of the national threat level to orange, or high risk. At this time, there is no specific threat in our state. The orange threat condition is for the country as a whole. Our state, however, is taking appropriate steps in response to this threat."

Compiled by: Analysis and Plans Section

Washington State Avalanche Risk Area

Washington State Emergency Management Hazards Technology Program December 29, 2003)



Legend

Volcanoes

Avalanche Risk

An avalanche occurs when a layer of snow loses its grip on a slope and slides downhill. Avalanches have killed more than 190 people in the past century in Washington State,

Common questions about avalanches are answered at http://www.avalanche.org/~uac/Common-questions.html.

This map was created by identifying areas with 25-55 degree slope that were above 1,000 feet in elevation. A 5-mile buffer was drawn around the area and the borders were dissolved. This process was applied to a 500 meter digital elevation model.

This map is intended for geographic display and assessment at a state level. No responsibility is assumed by the WA EMD in the use of this data.

EMERGENCY MANAGEMENT DIVISION
HAZARD RISK ASSESSMENT
FOR THE PERIOD
January– March 2004

HAZARD	CURRENT PRIORITY	PROBABILITY / Frequency of OCCURRENCE	IMPACT POTENTIAL	ANALYSIS	REMARKS / SOURCE
SEVERE STORMS	1	MEDIUM	MEDIUM	NOOA / PMEL forecast weather patterns as El Nino "Neutral" indicating less predictability, more variations. Historically, severe winter storms occur from early December through January.	Associated power outages and heating concerns http://www.pmel.noaa.gov/
AVALANCHE	2	HIGH ** (**National Standard Scale)		For this winter, NOAA / Climate Prediction Center expects 33-40% increased precipitation in the NW over the 1971- 2000 norm. Specific storm parameters can greatly affect avalanche danger. Transportation corridors remain vulnerable into March.	Mountain passes and backcountry areas are the most hazardous Local conditions vary greatly and change quickly; for the latest see: http://www.nwac.noaa.gov/
LANDSLIDES	3	MEDIUM	LOW	USGS / NOAA predictions of wetter conditions this winter. These usually result increase build up of trapped underground water that increases the risk of landslides.	
TERRORISM	4	LOW	**HIGH**	Government sources suggest a continuing likelihood that terrorists may attempt additional attacks on United States interests.	DHS Threat Advisory Level has been raised to ORANGE "HIGH". http://www.dhs.gov/dhspublic/
MAJOR EARTHQUAKE	5	LOW	**HIGH**	No significant changes to the normal pattern of small earthquakes. For current earthquake information http://www.ess.washington.edu/recenteqs/latest.htm	For additional information on earthquake hazards: http://www.geophys.washington.edu/SEIS/PNSN

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HAZARD	CURRENT PRIORITY	PROBABILITY / Frequency of OCCURRENCE	IMPACT POTENTIAL	ANALYSIS	REMARKS / SOURCE
LOCAL HAZMAT SPILLS	6	MEDIUM	LOW	Because of their chemical, physical, or biological nature, hazardous materials can pose a potential risk to life, health, the environment, and property. Many small spills occur daily statewide with about 150 reported to EMD each month.	Quick response, containment, and cleanup are key to limiting the impact of these events. http://www.ecy.wa.gov/../../pubs/96503/chapt6.htm
RADIOLOGICAL	7	LOW	**HIGH**	Public perception is a key element of safety, security, and protection of the economy.	
VOLCANO	8	LOW	**HIGH**	Scientists would normally expect some seismic warning prior to an eruption or a lahar.	Additional information: http://vulcan.wr.usgs.gov
TSUNAMI	9	LOW	**HIGH**	Large earthquakes and landslides can create tsunamis along our coast and in the Puget Sound region.	For additional information on Tsunami Awareness: http://www.pmel.noaa.gov/tsunami-hazard
LARGE HAZMAT SPILLS and UMCD	10	LOW	**HIGH**	At the Umatilla Chemical Depot, surrogate burning / testing is largely completed. Awaiting approval by Oregon Environmental Quality Committee. Anticipate a lengthy process.	Permitting complications delay incineration of live agent until mid- 2004. http://www.csepp.net/
FLOOD, INFECTIOUS DISEASES, WILDFIRES, AND OTHER LOCAL HAZARDS	11	LOW	LOW	Seasonal risks from flood and wildfire will increase further into 2004.	Specific hazards will be reprioritized as estimated risk levels rise.

Impact Potential Rating	People	Costs $
LOW	0-5	Less than $ 1 million
MEDIUM	6-20	Between $ 1 and $ 10 million
HIGH	More than 20	Over $ 10 million